

KEYBOARDS...



TAS BAM Users' Group, Inc.
P. O. Box 644
Safety Harbor, FL 33572



Tampa And Suncoast Bay Area Microcomputer

The Plotter
CCAT/S
1419 1/2 7th St.
Oregon City, OR

97045

VOL.3 NO.6

NOV.- DEC. 1985

VIEW FROM - RAMTOP -

GREETINGS AND WELCOME TO
RAMTOP:

WELL WE'RE HERE AT THE END
OF ANOTHER YEAR. I REALLY
DON'T WANT TO FALL INTO THE
TRAP OF WRITING ONE OF THOSE
"END-OF-THE-YEAR-THANKS-
EVERYBODY" COLUMNS, BUT.... IT
IS REALLY HARD NOT TO. WE'VE
HAD A LOT OF PROGRESS, SOME
SETBACKS BUT WE'VE REALLY DONE
WELL... WELL ALMOST.

WE HERE IN THE EXECUTIVE
COMMITTEE WERE HOPING TO HAVE
HAD A MORE INVOLVED
PARTICIPATION FROM THE
MEMBERS. THE DECEMBER 9th
CLOSING DATE HAS COME AND GONE
WITH AN OVERWHELMING
NONRESPONSE TO NOMINATIONS.
THERE WAS NOT A SINGLE
NOMINATION RECEIVED. THE NEXT
OPPORTUNITY FOR NOMINATIONS
WON'T BE UNTIL FEBRUARY 22, 1986
WHEN WE HOLD THE GENERAL
MEETING AND ELECTION. ONLY
THOSE PRESENT CAN PARTICIPATE.
I WOULD HOPE WE WOULD HAVE A
LARGE TURNOUT - SO A VERY FEW
DON'T MAKE DECISIONS THAT WILL
AFFECT ALL OF US. SO PLAN YOUR
CALENDER - SHOW YOUR SUPPORT -
VOTE AT THE GENERAL MEETING.

CONTINUED ON PAGE 3

..NOTICE..NOTICE..
ELECTIONS FOR
CORPORATE
OFFICERS WILL BE
HELD ON
*** * FEBRUARY 22 * ***
AT THE
*** LARGO MEETING ***

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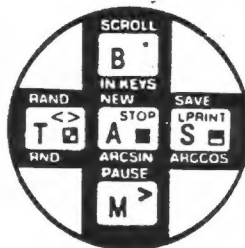
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KEYBOARDS:

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DO YOU GET TIRED OF THE INCREDIBLY SLOW AND JERKY SCROLL COMMAND ON THE TS/1000?

TAKE HEART TRUE PROGRAMMERS. THE FOLLOWING MACHINE CODE PROGRAM WILL NOT ONLY PERMIT YOU TO SCROLL UP, IT WILL ALSO PERMIT SCROLL DOWN, SCROLL LEFT, AND SCROLL RIGHT.

AFTER YOU TYPE IN THE PROGRAM SAVE IT. THEN RUN THE PROGRAM. THE PROGRAM IS THEN STORED SAFELY ABOVE RAMTOP SO THAT YOU CAN USE IT WITH ANY PROGRAM. TO USE THE SCROLLS USE THIS LINE IN YOUR PROGRAM:

LET Z = USR X
WHERE X=32521 FOR SCROLL UP
 =32542 FOR SCROLL DOWN
 =32566 FOR SCROLL
RIGHT

 =32586 FOR SCROLL LEFT
1 REM (YOU NEED 101 SPACES OR
OTHER CHARACTERS IN THIS REM
STATEMENT)

2 LET A\$=
"21097F220440EB015500219240EDB
OC9ED5B0C40132121001901F602EDB
006202B7110FCC92A0C4011F602424
B19EB21210019EBEDB80620237110F
CC90176172A0C401600237EB928047
25718F710F3C90176192A104016002
B7EB92804725718F710F3C9"

3 FAST

4 LET A=16514

5 FOR B=1 TO LEN A\$-1 STEP 2

6 POKE A,16*CODE A\$(B)+CODE
A=(B+1)-476

7 LET A=A+1

8 NEXT B

9 RAND USR 16514

10 NEW

REPRINTED FROM "SYNAPSE" VOL.
3 NO 6 TO 12 JUNE - DECEMBER
ISSUE PAGE 6, 20

ANOTHER OPEN LETTER FROM THE
TREASURER:

DEAR TASBAM MEMBERS,

I HAVE MADE UP A NEW
MEMBERSHIP LIST WITH THE
EXPIRATION DATES TO BE
INCLUDED ON THE MAILING
LABELS USED ON THIS ISSUE AND
ALL FUTURE ISSUES.

SO PLEASE HELP OUT YOUR
TREASURER BY PAYING YOUR DUES
NOW!! FOR THOSE OF YOU WHO
ARE NOT GOING TO RENEW, THIS
WILL BE YOUR LAST *FREE*
NEWSLETTER.

TO END THIS YEAR I WANT TO
THANK ALL WHO HAVE HELPED -
YOU KNOW WHO YOU ARE SO I
WON'T TAKE UP SPACE HERE.
WE'VE DONE WELL AND CAN
CONTINUE TO GROW.

HAPPY HOLIDAYS TO ALL AND
CONTINUED HAPPY COMPUTING FOR
1986!!!

MEL NATHANSON

!!! SOFTAID TAPE REVIEWS !!!

ANT ATTACK
BY QUICKSILVA

Ant attack is a game for
those who enjoy adventure games,
especially graphics adventures.
The game consists of maneu-
vering your character through
the 3D city of Antescher in
order to rescue a girl (or
boy). Easy enough except for
the fact that the victim is
guarded by a number of large
ants.

The graphics in this game
are outstanding. The buildings
have a very realistic 3D effect
and the animation is excellent.
It can be very difficult to
evade the ants and find the
victim, who is placed randomly
somewhere in the city.

Even though I would give
Ant Attack an excellent rating,
the program does have a few
flaws. The grenades that you
use to defend yourself are not
extremely accurate, for one
thing. Another is that you
sometimes can lose sight of
your character due to the
screen shifting position.

All in all, Ant Attack
is a good buy, especially if
you purchase it through SOFT-
AID. This program will run
only of the Spectrum or on a
TS 2068 with Spectrum emula-
tion. Remember, we now have a
copy of this program in the
club library. Contact J.C. for a
test drive!

Paul Kalinowski

THE SOFTAID TAPE PROGRAM
SPELLBOUND IS LIKE THE
ARCADE GAME QBERT IN THAT YOU
MUST CHANGE THE COLORS OF THE
TOADSTOOLS (SQUARES) AND
ADVANCE TO THE NEXT SET OF
TOADSTOOLS.

BUT INSTEAD OF SNAKES AND
FRUIT TO CHASE YOU, YOU HAVE
SKULLS, GHOSTS, GOBLINS.... YOU
GET THREE FROGS FOR EACH
LEVEL OF PLAY, SO IF YOU USE
2 FROGS TO GET TO FROM THE
FIRST LEVEL TO THE SECOND
LEVEL YOU CAN START THE
SECOND LEVEL WITH THREE NEW
VICTIMS!!!

EACH LEVEL GIVES YOU A NEW
CHALLENGE. I HAVE YET TO RUN
OUT OF TIME BEFORE RUNNING
OUT OF FROGS!!! AFTER PLAYING
SPELLBOUND FOR SOMETIME I
HAVE FINALLY GOTTEN TO THE
FIFTH (5) LEVEL.

THERE ARE ONLY TWO PROBLEMS
THAT A PERSON MIGHT HAVE IN
PLAYING SPELLBOUND (1) IF YOU
USE A BLACK AND WHITE TV OR
MONOCHROME MONITOR, THE COLOR
CHANGE OF THE TOADSTOOLS IS
HARD TO SEE. BUT USE OF A
COLOR TV OR MONITOR WILL FIX
THAT. (2) FOR THE BEST
RESULTS YOU REALLY NEED A
JOYSTICK TO ENJOY THE GAME.
USING THE KEYBOARD TO PLAY
SPELLBOUND IS COMBERSOME AND
REACTION TIME SUFFERS. IT CAN
REALLY GET MADDENING IF YOUR
FINGERS SLIP FROM THE KEYS
AND YOU FIND YOURSELF
PRESSING A KEY AND GETTING
NOWHERE FAST.

SPELLBOUND IS ONE OF MY
FAVORITE GAMES ON THE SOFTAID
TAPE AND I ADMIT THAT I WOULD
HAVE PURCHASED THE TAPE IF
SPELLBOUND HAD BEEN THE ONLY
GAME ON IT.

CHRIS LINDSTROM

*SALE*SALE*SALE*SALE*SALE*SALE
* TAS BAM COMPUTER CLUB HAS *
*SIX (6) COPIES OF PRO/FILE *
* FOR SALE TO CLUB MEMBERS AT*
* A SAVINGS OF OVER 30% OFF *
* THE LISTED PRICE. IF INTER-*
* ESTED PLEASE CONTACT THE *
* POST OFFICE BOX IN SAFETY *
* HARBOR FOR FUTHER DETAILS..*

SIMPLY BASIC SINCLAIR BASIC

by Roland Schnabel

Hopefully, this will be a bimonthly column. It is my intention to write about modifications to a BASIC program or subroutine as a method of teaching "simply basic Sinclair BASIC." I also plan to emphasize "user friendly" code. If you have comments, questions or requests you may send them to me at:

5106 E 127 Ave, Tampa, FL 33617

This month:

Converting PRO/FILE 2068 to the Rotronics Wafadrive

When I received my Rotronics Wafadrive, my first objective was to get Thomas Wood's PRO/FILE running on the Spectrum. Having accomplished that, I have been asked by the editors to write about my experience.

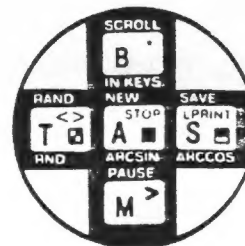
Be sure the computer is in Spectrum mode and the Wafadrive is ready. Insert the wafer to contain PRO/FILE in drive A and the PRO/FILE tape in a tape recorder.

1. Load the loader program (LOAD "PRO/FILE") and BREAK as soon as the initial display appears.

2. Enter: CLS* hit ENTER twice and the program will list.

We must make two changes to this program: change the LOAD instructions to work on the Wafadrive, and change the name of the second BASIC program to avoid duplicate names on a wafer. Duplicate names are fine on tape where you don't have a directory, but on wafers or disk they will not work. You can use any name you choose; I will use "profile1".

We could just change the last statement in line 40 to: LOAD *"a:p/f",63488 and statement in line 50 to: LOAD *"a:profile1" and be done with it. This works as long as you insert the wafer in drive A.



However, if we ever want to run the program from drive B, we will get an error saying it cannot find the "p/f" or "profile1" programs because it is attempting to load them from drive A as our statement said. That is not user friendly!

Another way to do it would be to leave out the drive ID and default to the drive. When you initialize the Wafadrive Operating System, drive A is automatically the default. You can change to the B drive by entering: CAT #"b:", then you can load PRO/FILE by entering: LOAD *"pro/file".

All programs will now load from the B drive. I do not like this method because you have to remember to enter an additional statement sometimes.

What we need is a way for the program to determine which drive the loader was loaded from and load the other programs from the same drive. Fortunately, there is a way to do this. If we look at the extended system variables, we find one called DRIVNR which is the current drive number. A 0 means drive A is the current drive and a 1 means drive B is the current drive. Therefore, if we make the following changes the loader will load the next two files from the same drive the loader was loaded from.

Delete the LOAD statement in line 40 and enter it without a LOAD statement. Then enter:

```
50 LET x$="a"
60 IF PEEK 23768 THEN LET x$="b"
70 LOAD *""+x$+":p/f",63488
80 LOAD *""+x$+":profile1"
```

That completes the modification to the loader. Save it on the wafer by entering:

SINCLAIR BASIC CONTINUED

SAVE *"a:pro/file" LINE 1

Now rewind the tape and load PRO/FILE again, but let it complete the load this time. When the "create or load" message appears, break out of the program by deleting the quote and entering STOP. Return the screen to the default settings by entering CLS * and hitting ENTER twice. Now we can SAVE the machine code program. Enter:

SAVE *"a:p/f",63488,2046

The next step is to modify the BASIC program to make it compatible with the Spectrum. The only non-Spectrum statements I have found are the ON ERR and RESET, and they each occur twice, meaning four statements must be deleted.

1. Delete statement 5007 (ON ERR GO TO 5005).
2. Delete "ON ERR RESET:" from statement 5016. It should now read:
5016 IF INKEY\$=" STOP " THEN
FLASH 0: GO TO 6000
3. Delete the first statement of line 5222 leaving just the IF statement.
4. Delete the first statement of line 5230 leaving the other four statements in the line.

Now all we have to do is SAVE the modified program. In order to save space on wafers, I save programs without the variables if possible. Therefore, enter: CLEAR followed by: SAVE *"a:profile1" LINE 9996. Use the same name here you used in the loader program if you did not use "profile1". To be sure everything works, remove the wafer from drive A and insert it in drive B and enter: LOAD * "b:pro/file"

Happy PRO/FILEing.

Next time I'll cover some changes I made to PRO/FILE to store data separately and provide automatic backup of data files.

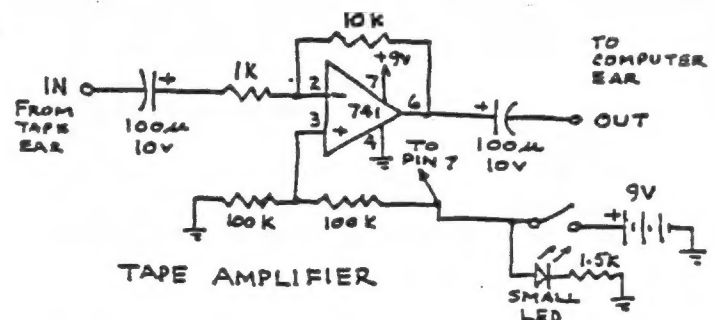
TAPE AMPLIFIER FOR LOADING WEAK TAPES

Tapes which are recorded at a low level are difficult to load. This little amplifier will take any tape output greater than half a volt and convert it into a square wave of about 6v peak to peak. This fits nicely into the 2068's preferred range of 4.5 to 9v. It also works with the ZX-81 permitting a great latitude in volume settings for a successful load. The tape head alignment seems to be more critical than with the 2068, however.

The circuit is extremely simple, using a 741 op amp as a standard inverting amplifier with a gain of 10 operating from a single power supply. I mounted mine on a small piece of perf-board and enclosed it and the battery in a 1"x2"x4" project box. I used a jack for the input and a short length of shielded wire with a male phone plug for the output. The entire circuit draws less than 6ma with no signal so the battery should last a fair length of time. The battery could be replaced with a 9v plug pack if you had a spare wall outlet.

ZX-81ers who need a noninverting output for FASTLOAD could simply use a 1458 dual 741 and add a second inverting stage.

ED. NOTE: This article was reprinted from SINC-LINK, Vol. 3, No. 6, pg. 8.



LD Crawford London T/S Club

SPECTRUM ON.ERR...

NOT TOO LONG AGO WHILE DOING A RE-WRITE OF MY TRIVIA 2000 (C) PROGRAM I DECIDED THAT I WOULD LIKE TO OFFER MY PROGRAM SO IT WOULD RUN ON BOTH THE TS 2068 AS WELL AS THE SPECTRUM. I WANTED THE PROGRAM TO BE ABLE TO DETERMINE WHICH MACHINE IT HAS BEEN LOADED INTO AND RUN ACCORDINGLY. IN OTHER WORDS IF THE PROGRAM DETERMINED THAT IT WAS RUNNING IN THE 2068 ROM ENVIRONMENT THE ENHANCED CAPABILITIES OF THE MACHINE, EG ON ERR, SOUND CHIP, STICK, BYTES FREE, ETC., COULD BE UTILIZED. IF THE PROGRAM DETERMINED THAT IT WAS BEING RUN IN THE SPECTRUM ENVIRONMENT THEN THESE COMMANDS SHOULD NOT INTERFERE CAUSING THE MACHINE TO CRASH. WHEN WRITING MOSTLY IN BASIC THE ABOVE 2068 COMMANDS WERE EASY TO PROGRAM AROUND SO THE PROGRAM WOULD FUNCTION ON EITHER MACHINE. THE ONE FUNCTION THAT I DID NEED ON THE SPECTRUM VERSION THOUGH WAS THE ON ERR COMMAND!! THE USE OF THE ON ERR COMMAND WILL ALLOW YOU TO SEND THE MACHINE TO YOUR OWN LITTLE SUBROUTINE AT ANY TIME AND YOU DON'T HAVE TO WRITE A SINGLE BYTE OF MC TO DO IT. IN THE MIDST OF RUNNING MY PROGRAM YOU CAN ACCESS THE SCORE SHEET AT ANY TIME BY MERELY PRESSING CAPS SHIFT + BREAK. THE PROBLEM WAS THAT WHEN THE PROGRAM IS RUN IN THE SPECTRUM MODE THE ON ERR COMMAND IS NOT AVAILABLE SO PRESSING THE BREAK KEY ONLY STOPS THE MACHINE.

SOLUTION: EMULATE THE ON ERR COMMAND IN THE SPECTRUM MODE. I KNEW I HAD HEARD OF JUST SUCH A ROUTINE AND SURE ENOUGH A CALL TO WES BRZOWSKI OF THE SINCUS USER GROUP WAS JUST WHAT WAS NEEDED. THE FOLLOWING ROUTINE IS SHORT AND WILL OPERATE IN EITHER THE 2068 OR SPECTRUM ENVIRONMENT BY POKING IN TWO VALUES THAT CONTROL THE RETURN TO ROM ADDRESS. THERE ARE ACTUALLY TWO SEPARATE PROGRAMS, ONE BEING THE ERROR HANDLER AND THE OTHER THE ERROR HANDLER SET UP ROUTINE. THE PROGRAM MAY RESIDE ANYWHERE IN THE RAM, BUT YOU MUST CHANGE THE TWO POINTERS OF THE ERROR HANDLER SET UP ROUTINE IF YOU CHOSE TO RELOCATE THE MC ONCE TYPED INTO AN ADDRESS. YOU MUST ALSO POKE IN THE PROPER 2 BYTES FOR THE 2068 OR SPECTRUM PRIOR TO CALLING THE ROUTINE OR YOU ARE IN FOR A CRASH.

* * = 2 BYTE ADDRESS OF LINE TO GO TO ON ERR (USE LEAST SIGNIFICANT BYTE, (LSB) MOST SIGNIFICANT BYTE, (MSB) FORMAT)

= C0h 1Ah FOR TIMEX ROM OR 70h 1Bh FOR SPECTRUM ROM

192d 26d

125d 27d

ERROR HANDLER

MNEMONIC	HEX	DEC
HALT	76	118
XOR A	AF	175
IN A, (FE)	DB FE	219, 254
OR E0	F6 E0	246, 224
CP FF	FE FF	254, 255
JR NZ, F7	20 F7	32, 247
XOR A	AF	175
LD (5C44), A	32 44 5C	50, 68, 92
DEC A	3D	61
LD (5C3A), A	32 3A 5C	50, 58, 92
LD HL, * *	21 * *	33, * *
LD (5C42), HL	22 42 5C	34, 66, 92
DEC SP	38	59
DEC SP	38	59
JP # #	C3 # #	195, # #

ERROR HANDLER SET UP ROUTINE

+ + = 2 BYTE ADDRESS OF THE BEGINNING OF THE ERROR HANDLER ROUTINE (USE LSB, MSB FORMAT)

MNEMONIC	HEX	DEC
LD BC, + +	01, + +	1, + +
LD HL, (5C3D)	2A 3D 5C	42, 61, 92
LD (HL), C	71	113
INC HL	23	35
LD (HL), B	70	112
RET	C9	201

PICK AN AREA OF RAM TO STORE THE ABOVE 39 BYTES OF INFO. AND BE SURE TO ENTER THE STARTING ADDRESS OF THE ERROR HANDLER IN THE 2nd AND 3rd BYTES OF THE ERROR HANDLER SET UP ROUTINE. PRIOR TO CALLING THE ERROR HANDLER SET UP ROUTINE WITH A RAND USR CALL MAKE SURE BYTE 28 AND 29 OF THE FIRST ROUTINE ARE SPECIFIED FOR THE CORRECT ROM AND THE TWO BYTES POINTING TO A LINE TO GO TO ON ERROR HAVE BEEN INSERTED. CALL THE ROUTINE BY USING RANDOMIZE USR (DECIMAL ADDRESS NUMBER OF THE ERROR HANDLER SET UP ROUTINE). REMEMBER THAT ONCE ACTIVATED YOU CANNOT GO BACK AND STOP THE PROGRAM, YOU CAN, HOWEVER, HAVE YOUR PROGRAM LINES POKE NEW POINTER VALUES INTO BYTES 21 & 22 TO REDIRECT WHERE THE PROGRAM WILL GO WHEN AN ERROR IS DETECTED. HOPE IT IS AS USEFUL TO YOU AS IT HAS BEEN TO ME.

JOHN KUHN

THE SINC TIMES/ TS NEWS TO USE
1707 KING ST.
JACKSONVILLE, FL 32204

THIS ARTICLE WAS REPRINTED FROM "SYNC TIMES", VOL. 1 ISSUE 3&4 PG. 6&7.

MEM SAVER

by Perry Wilson

I HAD BEEN A NOVICE COMPUTERIST FOR ABOUT FOUR YEARS WHEN I ORDERED MY ZX80 KIT FROM SINCLAIR RESEARCH ON MAY 26th, 1981. I RECEIVED IT ON JUNE 19.

I ASSEMBLED IT IN ABOUT A WEEK AND IT WORKED THE FIRST TIME I APPLIED POWER TO IT.

I KEPT READING IN THE LITERATURE ABOUT HEAT PROBLEMS, ALTHOUGH I NEVER EXPERIENCED ANY OF THEM. HOWEVER I APPLIED ALL THE REMEDIES I READ ABOUT TO LESSEN THE POSSIBILITY OF THEIR OCCURENCE.

ONE OF THESE REMEDIES WAS TO PRE-REGULATE THE OUTPUT OF THE POWER TRANSFORMER TO ABOUT 9 VOLTS, SO THE ON-BOARD REGULATOR WOULD NOT HAVE TO WORK SO HARD TO PULL THE VOLTAGE DOWN FROM ABOUT 13 VOLTS, THUS CAUSING AN ABNORMAL AMOUNT OF HEAT TO BE GENERATED.

AS I HAD ALREADY BUILT AN UN-INTERRUPTIBLE POWER SUPPLY USING A RADIO SHACK C.B. 13 VOLT POWER UNIT AS A CHARGER FOR A 12 VOLT FOUR AMP/HOUR NI-CAD BATTERY, I HAD TO IMPLEMENT SOME MEANS OF REGULATING THIS DOWN TO 9 VOLTS.

I HAD SENT TO MARTY IRONS, EDITOR OF QZX (A HAM-ORIENTED NEWSLETTER) A SCHEMATIC OF MY SUPPLY WITH A REQUEST FOR INFO ON HOW BEST TO CUT IT TO THE REQUIRED LEVEL.

HE CAME BACK WITH A SCHEMATIC FROM BRITAIN THAT USED A ZENER DIODE IN THE COMMON RETURN CIRCUIT OF A 7805 5v. REGULATOR. I ENDED UP USING A 5 WATT, 5.1v

ZENER. SO NOW MY OUTPUT IS 9.1v AND THE ON-BOARD REGULATOR JUST LOAFs ALONG.

I HAD IN MY JUNK-BOX, A CIGAR LIGHTER RECEPTACLE WHICH I MOUNTED ON THE COVER OF THE A.S. SUPPLY AND USED TO SUPPLY 12v TO A K-MART AC/DC TV. (THIS IS AN OPTION AND NOT REQUIRED FOR THE OPERATION OF THE SUPPLY.)

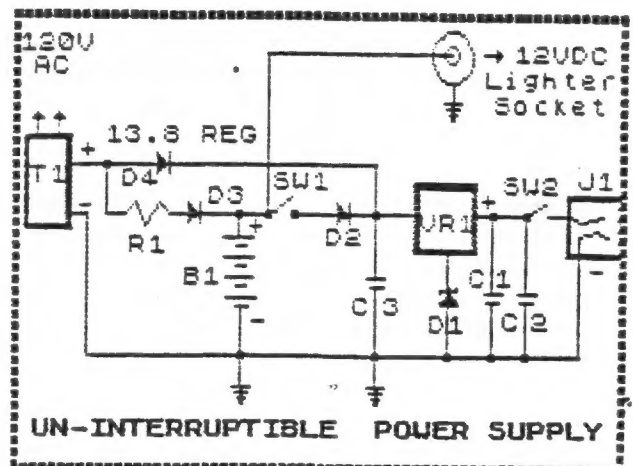
WITH THE SYSTEM, INCLUDING THE TV, RUNNING ONLY ON THIS SET-UP, OPERATION ONCE CONTINUED FOR A FULL 3 HOURS. I DO NOT KNOW HOW LONG IT WILL RUN USING THE BATTERY IN THE CAR, OR REGULAR AC TO POWER THE TV.

UN-INTERRUPTIBLE POWER SUPPLY IN USE TO POWER SINCLAIR ZX-80 WITH 8K ROM AND 16K RAM.

PARTS LIST

D1 = 5.1v/5W ZENER DIODE
D2,D3,D4 = 3 AMP DIODES
R1 = 51 OHMS J1 = MINI JACK
T1 = RADIO SHACK MOD POS 123Z
B1 = 12v GEL-SEL 4.5 AH BATTERY
SW1,SW2 = SPST SLIDE SWITCH
C1 = .47 uf C2 = 1000 uf
C3 = .22 uf
VR1 = 7805 VOLTAGE REGULATOR MOUNTED ON T0-3 HEAT SINK.

* EDITORS NOTE: THE STAFF OF KEYBOARDS WISHES TO THANK "SINC TIMES" FOR LETTING US PRINT THIS ARTICLE FROM VOL. 1 ISSUE 3&4, pg 5. *



WITH CONSTANTLY TRYING TO UPGRADE THE QUALITY OF OUR NEWSLETTER, THE EDITORS OF KEYBOARDS WISH TO INTRODUCE THE FOLLOWING GUIDE LINES FOR FUTURE ARTICLES/NOTICES ETC. SUBMITTED TO US FOR PUBLICATION. STARTING WITH THIS ISSUE WE WILL NO LONGER BE PRINTING ARTICLES OR NOTICES SUBMITTED ON TS 2040 THERMAL PAPER, BUT SUCH ARTICLES WILL BE RETYPED AND PRINTED IN A STANDARD FORMAT, WITH TYPE USED NO SMALLER THAN "CONDENSED TYPE" AS FOUND ON MOST DOT MATRIX FULL SIZE PRINTERS. YOU NEED NOT SUBMIT "CAMERA READY" TEXT (EXCLUDING PAID ADS, THESE MUST BE CAMERA READY AND IN KEYBOARDS FORMAT. FORMAT SENT UPON REQUEST.) YOUR TEXT WILL BE RETYPED TO OUR FORMAT.

TEXT MAY ALSO BE SUBMITTED ON TAPE. TAPES MUST BE DATA FILES FROM EITHER TEXT WRITER 2000 OR "SPECTRAL WRITER," AS THESE ARE THE WORD PROCESSORS USED FOR OUR NEWSLETTER. TEXT SUBMITTED ON TAPE WILL BE WORDED EXACTLY BUT FORMAT MAY BE CHANGED TO SUIT AVAILABLE SPACE ON A PAGE. TAPES WILL NOT BE RETURNED UNLESS A STAMPED SELF ADDRESSED MAILER IS PROVIDED OR UNLESS THE TAPE CAN BE RETURNED AT ONE OF OUR LOCAL ORGANIZATION MEETINGS.

WE BELIEVE THESE CHANGES TO KEYBOARDS WILL GREATLY IMPROVE THE APPEARANCE AND READABILITY OF "YOUR" NEWSLETTER.

THANK YOU

IN CASE YOU MAY HAVE NOTICED...

We, the editorial staff of Keyboards, in an effort to reduce costs and improve service, have instituted a few format changes in the newsletter. Be assured that these changes will not adversely affect the quality of Keyboards. Our special thanks to those members whose continuing support has enabled the production of this newsletter.

The Editorial Staff

POTENTIAL NEW MEMBERS.....

PLEASE COMPLETE THE INTEREST CARD BELOW AND SEND YOUR \$15.00 MEMBERSHIP FEE TO THIS ADDRESS.

TAS BAM USERS GROUP, INC.
P.O. BOX 644
SAFETY HARBOR, FL 33572

Membership includes free access to all libraries of TAS BAM and the program library. A subscription to "KEYBOARDS" for one year will keep you informed.

TAS BAM meetings are always open to the public at no charge. If you wish to attend before joining, you may certainly do so.

TAS BAM Users' Group, Inc.

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

DO YOU OWN YOUR OWN COMPUTER? _____

MAKE AND MODEL: _____

ARE YOU INTERESTED IN LESSONS

IN BASIC PROGRAMMING? _____

LIST MAIN INTERESTS: _____

DO YOU HAVE ANY KNOWLEDGE OF
HARDWARE OR SOFTWARE THAT YOU
WOULD LIKE TO SHARE? PLEASE
SPECIFY: _____

DO YOU HAVE ANY OBJECTION TO
YOUR NAME AND ADDRESS BEING
DISTRIBUTED TO MEMBERS WITH
SIMILAR INTERESTS? _____

FOR THE BENEFIT OF BOTH NEW AND
EXISTING MEMBERS HERE IS AN
UP-DATE OF THE TIMES AND PLACES OF
THE EXISTING MEETINGS. PLEASE
ATTEND THE MEETING THE MOST
CONVENIENT FOR YOU EACH MONTH AND
AS MANY MORE MEETINGS AS YOU
DESIRE DURING THE MONTH.

ST. PETERSBURG:

Second Saturday each month
7:30 p.m.

SUNRISE SAVINGS & LOAN

7777 No. Seminole Blvd.

(East side of Seminole Blvd.

first light north of Park
Blvd.)

TAMPA:

Third Saturday each month
1:00 p.m.

TAMPA TECHNICAL INSTITUTE

3920 Hillsboro Ave.

LARGO:

Fourth Saturday each month
2:00 p.m.

LARGO PUBLIC LIBRARY

351 East Bay Drive